

Title (en)

THERMOPLASTIC RESIN COMPOSITION, PREPARATION METHOD THEREFOR, AND MOLDED PRODUCT COMPRISING SAME

Title (de)

THERMOPLASTISCHE HARZZUSAMMENSETZUNG, HERSTELLUNGSVERFAHREN DAFÜR UND FORMPRODUKT DAMIT

Title (fr)

COMPOSITION DE RÉSINE THERMOPLASTIQUE, SON PROCÉDÉ DE PRÉPARATION ET PRODUIT MOULÉ LA COMPRENANT

Publication

EP 4043524 A4 20230104 (EN)

Application

EP 21878765 A 20211007

Priority

- KR 20200135221 A 20201019
- KR 20210130783 A 20211001
- KR 2021013764 W 20211007

Abstract (en)

[origin: EP4043524A1] The present invention relates to a thermoplastic resin composition, a method of preparing the same, and a molded article including the same. More particularly, the present invention provides a thermoplastic resin composition including 100 parts by weight of a base resin including 20 to 90 % by weight of a non-recycled thermoplastic resin (A) and 10 to 80 % by weight of a recycled thermoplastic resin (B); 1 to 10 parts by weight of an ethylene compound-vinyl acetate compound copolymer (C); and 0.01 to 10 parts by weight of an inorganic pigment (D), wherein the inorganic pigment (D) has a refractive index of 1.65 or more and an average particle diameter of 10 to 500 nm. Even though the thermoplastic resin composition of the present invention includes a recycled resin, the chemical resistance and appearance of the thermoplastic resin composition are improved while existing mechanical properties and moldability are maintained. In addition, physical property retention rate for repeated molding is greatly improved.

IPC 8 full level

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CPC (source: CN EP US)

C08K 3/04 (2013.01 - EP); **C08K 3/22** (2013.01 - EP); **C08L 23/0853** (2013.01 - US); **C08L 25/08** (2013.01 - CN); **C08L 25/12** (2013.01 - EP US); **C08L 55/02** (2013.01 - CN EP US); **C08L 69/00** (2013.01 - CN EP); **C08K 2003/2241** (2013.01 - CN EP); **C08K 2201/011** (2013.01 - CN EP); **C08L 2205/025** (2013.01 - EP); **C08L 2205/03** (2013.01 - EP); **C08L 2205/035** (2013.01 - EP); **C08L 2207/20** (2013.01 - EP US)

C-Set (source: CN EP)

CN

1. **C08L 25/08 + C08L 55/02 + C08L 23/0853 + C08K 3/22 + C08K 3/04**
2. **C08L 55/02 + C08L 55/02 + C08L 25/08 + C08L 23/0853 + C08K 3/22 + C08K 3/04**
3. **C08L 55/02 + C08L 55/02 + C08L 25/08 + C08L 23/0853 + C08K 3/22**
4. **C08L 69/00 + C08L 55/02 + C08L 25/08 + C08L 23/0853 + C08K 3/22**

EP

1. **C08L 25/12 + C08L 55/02 + C08L 55/02 + C08L 23/0853 + C08K 3/04 + C08K 2003/2241**
2. **C08L 55/02 + C08L 25/12 + C08L 55/02 + C08L 23/0853 + C08K 3/04 + C08K 2003/2241**
3. **C08L 55/02 + C08L 25/12 + C08L 25/12 + C08L 23/0853 + C08K 3/04 + C08K 2003/2241**
4. **C08L 69/00 + C08L 25/12 + C08L 55/02 + C08L 55/02 + C08L 23/0853 + C08K 3/04 + C08K 2003/2241**
5. **C08L 55/02 + C08L 25/12 + C08L 55/02 + C08L 25/12 + C08L 23/0853 + C08K 3/04 + C08K 2003/2241**

Citation (search report)

- [A] CN 104231535 A 20141224 - SUZHOU HANXIN PLASTIC INDUSTRY CO LTD
- [A] DE 4300798 A1 19940721 - BAYER AG [DE]
- [A] BISWAL MANORANJAN ET AL: "Effect of reactive compatibilizers and impact modifier on the performance characteristics of polycarbonate/poly(acrylonitrile-butadiene-styrene) blends obtained from E-waste", INTERNATIONAL JOURNAL OF PLASTICS TECHNOLOGY, CENTRAL INSTITUTE OF PLASTICS ENGINEERING & TECHNOLOGY, CIPET, IN, vol. 17, no. 2, 9 March 2014 (2014-03-09), pages 209 - 225, XP035343921, ISSN: 0972-656X, [retrieved on 20140309], DOI: 10.1007/S12588-014-9061-4
- See also references of WO 2022085998A1

Designated contracting state (EPC)

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